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EXAMINER	
KUMAR, PANKAJ	

ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/923,374	DAHLMAN ET AL.	
	Examiner	Art Unit	
	Pankaj Kumar	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 August 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-108* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11-17,21-28,32-37,40-42,45,46,49-51,53,54,57-61,63-70,72-89 and 97-108* is/are rejected.

7)☒ Claim(s) *10,18-20,29-31,38,39,43,44,47,48,52,55,56,62,71 and 90-96* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/7/2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the title should be removed.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 12, 32, 50, 53, 58, 86, 99, 2, 13, 100, 3, 14, 101, 9, 27, 49, 57, 60, 88, 107, 15, 21, 97, 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atarius wo-00/35112. Here is how the reference teaches the claims:

3. As per claims 1, 12, 32, 50, 53, 58, 86, 99: A method (or apparatus) of processing a spread spectrum signal, the method comprising: correlating the spread spectrum signal (Atarius fig. 3: input signal; pg.1 line 4: spread spectrum; pg. 1 line 9: correlation) with a spreading sequence (Atarius fig. 3: chip sequences) at a first plurality of correlation times (Atarius pg. 2 line 26-pg.3 line 3; pg. 1 lines 8-10; fig. 3: 320, 322, 330, 332) to produce a first plurality of time-offset correlations (Atarius fig. 3: output of 320, 322, 330, 332); processing the first plurality of time-offset correlations (Atarius fig. 3: 340, 342, 350, 352, 362, 364) to produce a first symbol representation (Atarius fig. 3: summation output of 362) for a symbol (Atarius fig. 3: 112; pg. 3 line 25: digital samples; obvious for it to teach symbols as discussed below);

determining a first quality for the first symbol representation (Atarius fig. 3: determining whether output of 362 meets a threshold in 364); and responsive to the determined first quality (Atarius fig. 3: 364 is responsive to whether its input is above or below the threshold; i.e. if quality meets some criteria), determining whether to further process the first symbol representation (Atarius fig. 3: if the input to 364 is above the threshold then there will be a data output out of 364 that will undergo further processing) or to process a second symbol representation (Atarius fig. 3: if the input to 364 is below the threshold then the system will wait to output till it can get samples which after the fingers and multiplies and accumulation are above a threshold by processing the next 112) for the symbol (Atarius fig. 3: 112; pg. 3 line 25: digital samples) generated from the spread spectrum signal (Atarius fig. 3: input signal; pg.1 line 4: spread spectrum).

4. Atarius teaches digital samples but does not teach symbols. The office takes official notice that groups of binary numbers or digital samples comprise symbols. Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of Atarius with symbols as recited by the instant claims, because Atarius suggests groups of binary numbers in the analogous art of signal processing.

5. As per claims 2, 13, 100: The method (or apparatus) of an earlier claim, comprising generating the second symbol representation from the spread spectrum signal before determining whether to further process the first symbol representation or to process the second symbol representation for the symbol generated from the spread spectrum signal. Atarius does not teach generating the second one before determining whether to further process the first one or to process the second one. The office takes official notice that after the first data has been processed through an element in fig. 3, the next data would be processed without waiting for all

of the elements to complete processing since this would make the system work faster. Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of Atarius with generating the second one before determining whether to further process the first one or to process the second one as indicated by the instant claims, because Atarius suggests a fast system and accordingly one element would not want to wait for all of the other elements down the chain to finish processing before the first element processes another data in the analogous art of data processing.

6. As per claims 3, 14, 101: The method or apparatus of an earlier claim, comprising generating the second symbol representation from the spread spectrum signal after determining whether to further process the first symbol representation or to process the second symbol representation for the symbol generated from the spread spectrum signal. Atarius does not teach generating the second one after determining whether to further process the first one or to process the second one. The office takes official notice that when the data into the system is arriving slowly, that element 364 in fig. 3 might be finished processing the data before another input is received and 112 generated. Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of Atarius with generating the second one after determining whether to further process the first one or to process the second one as indicated by the instant claims, because Atarius suggests data processing being limited by the rate at which the input signal is received in the analogous art of data processing.

7. As per claim 9, 27, 49, 57, 60, 88, 107: The method or apparatus of an earlier claim, wherein the first symbol representation is an output of a demodulation process and wherein the

second symbol representation is an output of a generalized (G-RAKE) demodulation process (applicant's specification background of the invention such as page 2 lines 1-15).

8. As per claim 15: The method of an earlier claim, wherein processing a second plurality of time-offset correlations of the spread spectrum signal with the spreading sequence to produce the second symbol representation responsive to the determined first quality failing to meet a predetermined criterion is preceded by correlating the spread spectrum signal with the spreading sequence at a second plurality of correlation times to produce the second plurality of time-offset correlations. Atarius does not teach that the symbol representation is preceded by processing the signal. The office takes official notice that signal processing would have to occur before there is symbol representation in Atarius based how signal representation in Atarius is defined as written above. Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of Atarius with symbol representation preceded by signal processing as indicated in the instant claims, because Atarius suggests receiving and the processing to generate useable information and that symbol representation would have to be preceded by processing the signal in order to produce the correlations which are summed to provide the symbol representation in the analogous art of signal reception.

9. As per claim 21: The method of Claim 12, wherein generation of the first symbol representation consumes less of a selected resource than generation of the second symbol representation. Atarius does not teach use less of a selected resource for generation of the second symbol representation. The office takes official notice that in Atarius, generating first one would consume less power if the system has to wait a long time for receiving the next input signal after it processes the first one. Thus, it would have been obvious, to one of ordinary skill

in the art, at time the invention was made, to modify the prior art teaching of Atarius with use less of a selected resource for generation of the second symbol representation as indicated by the instant claims, because Atarius suggests generating first one would consume less power if the system has to wait a long time for receiving the next input signal after it processes the first one in the analogous art of signal reception and processing.

10. As per claim 97: A receiver according to Claim 86, wherein the receiver further comprises a radio receiver operative to receive a radio frequency signal and to generate a signal sample therefrom, and wherein the multi-process demodulator is operative to generate the first and second symbol representations from the signal sample. (Atarius fig. 1: radio reception via antenna; fig. 3: 110 radio frequency receiver, rest of the circuit works from this reception)

11. As per claim 98. A receiver according to Claim 97, included in one of a wireless communications terminal (Atarius fig. 1: 50) and a wireless communications base station.

12. Claims 4, 22, 33, 102, 5, 23, 34, 103, 6, 24, 35, 104, 8, 26, 37, 106, 11, 28, 108 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atarius wo-00/35112 as applied to claims above in view of Held USPN 6463097. Here is how the reference teaches the claims:

13. As per claims 4, 22, 33, 102: The method or apparatus of an earlier claim, wherein determining a first quality for the first symbol representation comprises: decoding the first symbol representation; and determining the first quality responsive to the decoding of the first symbol representation. Atarius does not teach decoding. Held teaches decoding (Held fig. 1: 45; fig. 2: 54, 64, 74, 84, 52, 62, 72, 82; fig. 3: 106, 112, 107, 102). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the

decoding as recited by the instant claims, because the combined teaching of Atarius with Held suggest decoding as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Atarius with Held because Atarius suggests receiving (something broad) in general and Held suggests the beneficial use of decoding to know what is received in the analogous art of receiving.

14. As per claims 5, 23, 34, 103: The method or apparatus of an earlier claim: wherein decoding the first symbol representation comprises decoding the first symbol representation to generate decoded data (Held figs. 1, 2, 3: output of the decoders); and wherein determining the first quality responsive to the decoding of the first symbol representation comprises error checking the decoded data (Held fig. 2: CRC check: 55, 65, 75, 85).

15. As per claims 6, 24, 35, 104: The method of Claim 5, wherein error checking the decoded data comprises performing at least one of a cyclic redundancy check (CRC) (Held fig. 2: CRC check: 55, 65, 75, 85), a bit error rate determination, and a Reed-solomon decoding of the decoded data.

16. As per claims 8, 26, 37, 106: The method or apparatus of an earlier claim, wherein determining a first quality for the first symbol representation comprises determining a soft output that indicates a level of confidence in the first symbol representation. (Held: CRC is a soft output that indicates level of confidence since if a low number of symbols are in error, then that can be corrected based on symbol and CRC data but if high number of symbols are in error then that cannot be corrected)

17. As per claims 11, 28, 108: The method or apparatus of an earlier claim, wherein determining whether to further process the first symbol representation or to process a second

symbol representation for the symbol generated from the spread spectrum signal comprises determining whether to further process first decoded data corresponding to the first symbol representation or second decoded data corresponding to the second symbol representation. (Atarius has symbol representation of symbols and determining whether to further process and Held is decoding symbols)

18. Claims 7, 25, 36, 105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atarius in view of Held as applied to claims above, and further in view of Uesugi USPN 6,259,721.

19. As per claims 7, 25, 36, 105: The method or apparatus of an earlier claim, wherein determining the first quality responsive to the decoding of the first symbol representation comprises generating a decoding metric as part of the decoding of the first symbol representation (Uesugi col. 5 line 58 to col. 6 line 40; decoding in col. 6 line 23, metric in col. 6 line 24). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the metric as recited by the instant claims, because the combined teaching of Atarius in view of Held with Uesugi suggest metric as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Atarius in view of Held with Uesugi because Atarius in view of Held suggests decoding (something broad) in general and Uesugi suggests the beneficial use of metrics to determine the quality of the decoding in the analogous art of signal processing.

20. Claims 16, 17, 45, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atarius wo-00/35112 as applied to claims above in view of Ottosson USPN 6,683,924. Here is how the reference teaches the claims:

21. As per claim 16: The method of Claim 15, further comprising determining the first and second pluralities of correlation times based on a channel estimate. (Ottosson fig. 4: 394' determine multiple correlation times). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the plurality of correlation times as recited by the instant claims, because the combined teaching of Atarius with Ottosson suggest plurality of correlation times as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Atarius with Ottosson because Atarius suggests correlations (Atarius fig. 6: 772) (something broad) in general and Ottosson suggests the beneficial use of determining correlation times based on channel estimate in order to get good quality output in the analogous art of correlation.

22. As per claim 17: The method of Claim 16, wherein determining the first and second pluralities of correlation times based on a channel estimate comprises the step of determining a first one of the first and second pluralities of correlation times based on a channel estimate and determining a second one of the first and second pluralities of correlation times based on a channel estimate and information regarding an interfering spread spectrum signal. (Ottosson fig. 4: 394' correlation times determined based on 430 channel estimates and 405 which comprises interfering signals)

23. As per claim 45: The method of Claim 32, further comprising determining the first and second pluralities of correlation times based on a channel estimate (Ottosson fig. 4; correlation time determined based on channel estimate).

24. As per claim 46: The method of Claim 45, wherein determining the first and second pluralities of correlation times based on a channel estimate comprises the step of determining a first one of the first and second pluralities of correlation times based on a channel estimate and determining a second one of the first and second pluralities of correlation times based on a channel estimate and information regarding an interfering spread spectrum signal. (see response of claim 45)

25. Claims 51, 54, 59, 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atarius wo-00/35112 as applied to claims above in view of Takano USPN 6,788,669. Here is how the reference teaches the claims:

26. As per claim 51: The method of Claim 50, wherein the first and second demodulation processes are operative to provide different levels of performance in a given interference environment. (Takano fig. 7: depending on the amount of delay between the different demodulating portions, different levels of performance will be achieved). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the first and second demodulation processes are operative to provide different levels of performance in a given interference environment as recited by the instant claims, because the combined teaching of Atarius with Takano suggest first and second demodulation processes are operative to provide different levels of performance in a given interference environment as recited by the

instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Atarius with Takano because Atarius suggests demodulation (Atarius page 3 line 18) (something broad) in general and Takano suggests the beneficial use of different performance levels with the different amounts that each demodulating part has to process based on the delay; for example, if it is the first signal, the 6th demodulating part will not process but the first demodulating part will process because of delay 15 and this results in better correlation in the analogous art of correlation.

27. As per claim 54: The method of Claim 50, wherein the first and second symbol representations are generated in parallel. (Takano fig. 7: outputs of demodulators are in parallel)

28. As per claim 59: The method of Claim 58, wherein the first and second demodulation processes comprise respective first and second spread spectrum demodulation (Takano fig. 7: multiple demodulations; col. 4 lines 7-8 spread spectrum).

29. As per claim 87: A receiver according to Claim 86, wherein the first and second demodulation processes comprise respective first and second spread spectrum demodulation processes. (Takano fig. 7: multiple demodulations; col. 4 lines 7-8 spread spectrum).

30. Claims 61, 89 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atarius wo-00/35112 as applied to claims above in view of Soleimani USPN 5,208,829. Here is how the reference teaches the claim:

31. As per claims 61, 89: The method of Claim 58, wherein the first and second demodulation processes comprise respective non-spread spectrum demodulation processes. (Soleimani claim 9). Thus, it would have been obvious, to one of ordinary skill in the art, at time

the invention was made, to arrive at the non-spread spectrum demodulation processes as recited by the instant claims, because the combined teaching of Atarius with Soleimani suggest non-spread spectrum demodulation processes as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Atarius with Soleimani because Atarius suggests demodulation (something broad) in general and Soleimani suggests the beneficial use of non-spread spectrum such as the demodulator having wider usage in the analogous art of demodulation.

32. Claims 69, 81, 70, 73, 74, 75, 76, 82, 83, 84, 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uesugi USPN 6,259,721. Here is how the reference teaches the claims:

33. As per claim 69, 81: A spread spectrum receiver, comprising: a multi-process demodulator circuit operative to process a spread spectrum signal according to respective first and second demodulation processes to produce respective first and second symbol representations for a symbol (Uesugi fig. 4: multiple demodulators); and a quality discriminator circuit operative to selectively output decoded data corresponding to a selected one of the first and second symbol representations based on a quality of at least one of the first and second symbol representations (Uesugi fig. 4: 227; fig. 6: S8; fig. 7: 328. 329, 327). Uesugi does not teach quality discriminator. The office takes official notice that since Uesugi teaches high and low quality, it is discriminating quality. Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to modify the prior art teaching of Uesugi quality discriminator as recited by the instant claims, because Uesugi suggests varying qualities and thus it is discriminating qualities in the analogous art of demodulation.

34. As per claim 70: A receiver according to Claim 69, wherein the first and second demodulation processes are operative to provide different levels of performance in a given interference environment (Uesugi fig. 8: different demodulators have different levels of performance based on different qualities).

35. As per claim 73: A receiver according to Claim 69, wherein the multi-process demodulator circuit is operative to generate the first and second symbol representations in parallel (Uesugi figs. 4, 7, 8: demodulators are in parallel).

36. As per claim 74: A receiver according to Claim 73, wherein the quality discriminator circuit is operative to output decoded data corresponding to a selected one of the first and second symbol representations based on a comparison of first and second qualities of the first and second symbol representations (Uesugi col. 5 line 58 to col. 6 line 40; decoding in col. 6 line 23; also discussed with respect to claim 69).

37. As per claim 75: A receiver according to Claim 69, wherein the quality discriminator circuit is operative to output decoded data corresponding to a selected one of the first and second symbol representations based on a decoding of at least one of the first and second symbol representations (Uesugi col. 5 line 58 to col. 6 line 40; decoding in col. 6 line 23).

38. As per claim 76: A receiver according to Claim 69, wherein a first one of the first and second demodulation processes comprises a RAKE demodulation process, and wherein a second one of the first and second demodulation processes comprises a generalized (G-R AKE) demodulation process. (applicant's background of the invention)

39. As per claim 82: A receiver according to Claim 81, wherein the quality indicator comprises a decoding metric (Uesugi col. 5 line 58 to col. 6 line 40; decoding in col. 6 line 23, metric in col. 6 line 24).

40. As per claim 83: A receiver according to Claim 81 , wherein the quality indicator generator circuit comprises an error checking circuit. (Uesugi col. 6 lines 46-50)

41. As per claim 84: A receiver according to Claim 69, wherein the receiver comprises a radio processor operative to receive a radio frequency spread spectrum communications signal and to generate a signal sample therefrom, and wherein the multi-process demodulator circuit is operative to generate the first and second symbol representations from the signal sample. (Uesugi figs. 2, 4, 7: radio section, demodulation)

42. As per claim 85: A receiver according to Claim 84, included in one of a wireless communications terminal or a wireless communications base station. (Uesugi figs. 2, 3, 4, 5, 7, 8: wireless communication via antennas)

43. Claim 72 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uesugi USPN 6259721 is applied to the above claims and further in view of Takano USPN 6,788,669. Here is how the reference teaches the claims:

44. As per claim 72: A receiver according to Claim 69, wherein the multi-process demodulator circuit is operative to generate the first and second symbol representations in series. Uesugi teaches series since over time, the demodulations will be outputting data. But if this is not enough, Takano teaches series with (Takano fig. 3: 16; col. 6 lines 53-60). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at

the series as recited by the instant claims, because the combined teaching of Uesugi with Takano suggest series as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Uesugi with Takano because Uesugi suggests demodulation in general and Takano suggests the beneficial use of demodulation with series output such as half demodulations in succession so that processing can be faster since processing can start before receiving the full bursts in the analogous art of demodulation.

45. Claims 77, 78, 79, 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uesugi USPN 6259721 is applied to the above claims and further in view of Ottosson USPN 6683924. Here is how the reference teaches the claims:

46. As per claim 77: A receiver according to Claim 69, wherein the multi-process demodulator circuit comprises: a correlator circuit operative to correlate the spread spectrum signal at a plurality of selected correlation times to produce a plurality of time-offset correlations; and a correlation processor circuit operative to process the plurality of correlation times to generate a symbol representation. (Ottosson fig. 4: 414, 394', 425, 430). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the plural correlation times as indicated by the instant claims, because the combined teaching of Uesugi with Ottosson suggest plural correlations times as indicated by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Uesugi with Ottosson because Uesugi suggests data reception (something broad) in general and Ottosson suggests the beneficial use of correlating the received data at plural and

adjustable times to try to get the best signal quality reception in the analogous art of data reception.

47. As per claim 78: A receiver according to Claim 77, wherein the correlation processor circuit comprises a combiner circuit operative to combine the plurality of time-offset correlations according to selected combining weighting factors. (Ottosson fig. 4: 415)

48. As per claim 79: A receiver according to Claim 78, wherein the discriminator circuit is operative to generate a quality indicator that indicates a quality of a symbol representation generated by the multi-process demodulator (Uesugi fig. 7: 328), and wherein the combiner circuit is operative to select the combining weighting factors responsive to the quality indicator. (Ottosson fig. 4: 414, 394', 425, 430, 415) (Uesugi fig. 7: 329, 327)

49. As per claim 80: A receiver according to Claim 77, wherein the discriminator circuit is operative to generate a quality indicator that indicates a quality of a symbol representation generated by the multi-process demodulator, and wherein the correlator circuit is operative to select the plurality of correlation times responsive to the quality indicator. (Ottosson fig. 4: correlation timing determiner is selecting or determining correlation times)

Allowable Subject Matter

50. Claims 10, 18, 19, 20, 29, 30, 31, 38, 39, 43, 44, 47, 48, 52, 55, 56, 62, 71, 90, 91, 92, 93, 94, 95, 96 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (571) 272-3011. The examiner can normally be reached on Mon, Tues, Thurs and Fri after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pankaj Kumar
Patent Examiner
Art Unit 2631

PK